AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1. (Cancelled).

Claim 2. (Currently Amended) A peptide of either ~~(5) or (6)~~ (1) or (2) below:

~~(5)~~ (1) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 1

~~(6)~~ (2) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 2.

Claim 3. (Currently Amended) A cancer vaccine comprising the peptide of claim ~~1~~2 as an active ingredient.

Claim 4. (Currently Amended) The~~A~~ cancer vaccine of claim 3, wherein the cancer is an epithelial cancer.

Claim 5. (Currently Amended) The~~A~~ cancer vaccine of claim 3, wherein the cancer is selected from the group consisting of large intestinal cancers, lung cancers, breast cancers, gastric cancers, buccal cancers, pancreatic cancers, esophagal cancers, nasopharyngeal cancers, uterine cancers, prostate cancers, and gallbladder cancers.

Claim 6. (Currently Amended) The~~A~~ cancer vaccine of claim 3 which is used for a human having HLA-A2402 as a leukocyte antigen.

Claim 7. (Currently Amended) A cytotoxic T lymphocyte inducer comprising the peptide of claim ~~1~~2 as an active ingredient.

Claim 8. (Currently Amended) TheA cytotoxic T lymphocyte inducer of claim 7 which is used for a human having HLA-A2402 as a leukocyte antigen.

Claim 9. (Currently Amended) A polynucleotide of either ~~of any one of (7) to (10)~~ (3) or (4) below:

~~(7)~~ (3) a polynucleotide consisting essentially of the ~~base~~ nucleotide sequence represented by SEQ ID NO:10

~~(8)~~ (4) a polynucleotide consisting essentially of the ~~base~~ nucleotide sequence represented by SEQ ID NO:11

~~(9) a mutant polynucleotide that hybridizes with a polynucleotide consisting of the base sequence represented by SEQ ID NO:10 under stringent conditions, and coding for a peptide capable of forming a complex with an HLA-A2402 molecule to be recognized by HLA-A2402-restricted cytotoxic T lymphocytes or induce such lymphocytes~~

~~(10) a mutant polynucleotide that hybridizes with a polynucleotide consisting of the base sequence represented by SEQ ID NO: 11 under stringent conditions, and being capable of forming a complex with an HLA-A2402 molecule to be recognized by HLA-A2402-restricted cytotoxic T lymphocytes or induce such lymphocytes~~.

Claim 10. (Original) A gene therapy drug for an epithelial cancer comprising the polynucleotide of claim 9 as an active ingredient.

Claim 11. (Original) A recombinant vector comprising the polynucleotide of claim 9.

Claim 12. (Currently Amended) A transformant comprising~~wherein~~ the recombinant vector of claim 11 ~~is introduced~~.

Claim 13. (Currently Amended) A process for producing a peptide, comprising the steps of cultivating the transformant of claim 12, and collecting the peptide from the culture, wherein the peptide is ~~any one~~ either ~~of~~ (1) ~~to (6)~~ or (2) below:

~~(1) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 1~~

~~(2) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 2~~

~~(3) a mutant peptide consisting essentially of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO:1 by addition, deletion or substitution of one or more amino acids, the peptide being capable of forming a complex with an HLA-A2402 molecule to be recognized by HLA-A2402-restricted cytotoxic T lymphocytes or induce such lymphocytes~~

~~(4) a mutant peptide consisting essentially of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO:2 by addition, deletion or substitution of one or more amino acids, the peptide being capable of forming a complex with an HLA-A2402 molecule to be recognized by HLA-A2402-restricted cytotoxic T lymphocytes or induce such a lymphocytes.~~

~~(5)~~ (1) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 1

~~(6)~~ (2) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 2.

Claim 14. (Currently Amended) An antigen-presenting cell which was pulsed with the peptide of claim ~~12 is pulsed~~.

Claim 15. (Original) A cancer vaccine comprising the antigen-presenting cell of claim 14 as an active ingredient.

Claim 16. (Currently Amended) The~~A~~ cancer vaccine of claim 15, wherein the cancer is an epithelial cancer.

Claim 17. (Currently Amended) The~~A~~ cancer vaccine of claim 15, wherein the cancer is selected from the group consisting of large intestinal cancers, lung cancers, breast cancers, gastric cancers, buccal cancers, pancreatic cancers, esophagal cancers, nasopharyngeal cancers, uterine cancers, prostate cancers, and gallbladder cancers.

Claim 18. (Currently Amended) The~~A~~ cancer vaccine of claim 15 which is used for a human having HLA-A2402 as a leukocyte antigen.

Claim 19. (Original) A cytotoxic T lymphocyte inducer comprising the antigen-presenting cell of claim 14 as an active ingredient.

Claim 20. (Currently Amended) The~~A~~ cytotoxic T lymphocyte inducer of claim 19 which is used for treating a human having HLA-A2402 as a leukocyte antigen.

Claim 21. (Currently Amended) A major histocompatibility antigen complex comprising a major histocompatibility antigen, and ~~the~~ a peptide, wherein the peptide is ~~any one~~ either ~~of~~ (1) ~~to (6)~~ or (2) below:

~~(1) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 1~~

~~(2) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 2~~

~~(3) a mutant peptide consisting essentially of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO:1 by addition, deletion or substitution of one or more amino acids, the peptide being capable of forming a complex~~

~~with an HLA A2402 molecule to be recognized by HLA A2402 restricted cytotoxic T lymphocytes or induce such lymphocytes~~

~~(4) a mutant peptide consisting essentially of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO:2 by addition, deletion or substitution of one or more amino acids, the peptide being capable of forming a complex with an HLA A2402 molecule to be recognized by HLA A2402 restricted cytotoxic T lymphocytes or induce such a lymphocytes~~.

~~(5)~~ (1) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 1

~~(6)~~ (2) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 2~~.~~

or the tumor antigen epitope peptide present on the antigen-presenting cell of claim 14.

Claim 22. (Currently Amended) The~~A~~ major histocompatibility antigen complex of claim 21 comprising an HLA-A2402 molecule, a β2-microgloblin, and ~~the~~ a peptide, wherein the peptide is either ~~any one of~~ (1) ~~to (6)~~ or (2) below:

~~(1) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 1~~

~~(2) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 2~~

~~(3) a mutant peptide consisting essentially of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO:1 by addition, deletion or substitution of one or more amino acids, the peptide being capable of forming a complex with an HLA A2402 molecule to be recognized by HLA A2402 restricted cytotoxic T lymphocytes or induce such lymphocytes~~

~~(4) a mutant peptide consisting essentially of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO:2 by addition, deletion or substitution of one or more amino acids, the peptide being capable of forming a complex with an HLA-A2402 molecule to be recognized by HLA-A2402-restricted cytotoxic T lymphocytes or induce such a lymphocytes~~.

~~(5)~~ (1) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 1

~~(6)~~ (2) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 2

or the tumor antigen epitope peptide present on the antigen-presenting cell.

Claim 23. (Currently Amended) A cancer vaccine comprising the major histocompatibility antigen complex of claim 21 as an active ingredient.

Claim 24. (Currently Amended) The~~A~~ cancer vaccine of claim 23, wherein the cancer is an epithelial cancer.

Claim 25. (Currently Amended) The~~A~~ cancer vaccine of claim 23, wherein the cancer is selected from the group consisting of large intestinal cancers, lung cancers, breast cancers, gastric cancers, buccal cancers, pancreatic cancers, esophagal cancers, nasopharyngeal cancers, uterine cancers, prostate cancers, and gallbladder cancers.

Claim 26. (Currently Amended) The~~A~~ cancer vaccine of claim 23, which is used for treating a human having HLA-A2402 as a leukocyte antigen.

Claim 27. (Previously Presented) A cytotoxic T-lymphocyte inducer comprising the major histocompatibility antigen complex of claim 21 as an active ingredient.

Claim 28. (Currently Amended) The~~A~~ cytotoxic T lymphocyte inducer of claim 27 which is used for treating a human having HLA-A2402 as a leukocyte antigen.

Claim 29. (Currently Amended) A major histocompatibility antigen complex tetramer comprising a major histocompatibility antigen and a~~the~~ peptide, wherein the peptide is either ~~any one of~~ (1) ~~to (6)~~ or (2) below:

~~(1) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 1~~

~~(2) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 2~~

~~(3) a mutant peptide consisting essentially of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO:1 by addition, deletion or substitution of one or more amino acids, the peptide being capable of forming a complex with an HLA-A2402 molecule to be recognized by HLA-A2402-restricted cytotoxic T lymphocytes or induce such lymphocytes~~

~~(4) a mutant peptide consisting essentially of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO:2 by addition, deletion or substitution of one or more amino acids, the peptide being capable of forming a complex with an HLA-A2402 molecule to be recognized by HLA-A2402-restricted cytotoxic T lymphocytes or induce such a lymphocytes~~.

~~(5)~~ (1) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 1

~~(6)~~ (2) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 2 ~~or~~

or the tumor antigen epitope peptide present on the antigen-presenting cell of claim 14.

Claim 30. (Currently Amended) A cytotoxic T lymphocyte which is obtained by stimulating peripheral blood lymphocytes using:

the peptide of claim ~~1~~2 and isolating the cytotoxic T lymphocyte from the complex.

Claim 31. (Currently Amended) The~~A~~ cytotoxic T lymphocyte of claim 30 which is obtained by the steps ~~of~~ comprising forming a complex between a major histocomaptibility antigen complex and/or a tetramer thereof and a cytotoxic T lymphocyte by stimulating peripheral blood lymphocytes and isolating the cytotoxic T lymphocyte from the complex.

Claim 32. (Previously Presented) A passive immunotherapy drug comprising the cytotoxic T lymphocyte of claim 30 as an active ingredient.

Claim 33. (Currently Amended) The~~A~~ passive immunotherapy drug of claim 32, wherein the cancer is an epithelial cancer.

Claim 34. (Currently Amended) The~~A~~ passive immunotherapy drug of claim 32, wherein the cancer is selected from the group consisting of large intestinal cancers, lung cancers, breast cancers, gastric cancers, buccal cancers, pancreatic cancers, esophagal cancers, nasopharyngeal cancers, uterine cancers, prostate cancers, and gallbladder cancers.

Claim 35. (Currently Amended) The~~A~~ passive immunotherapy drug of claim 32 which is used for a human having HLA-A2402 as a leukocyte antigen.

Claim 36. (Currently Amended) A method of quantifying HLA-A2402-restricted cytotoxic T lymphocytes in peripheral blood, comprising

making the following-act on peripheral blood:

the peptide of claim ~~1~~2, and

quantifying cytotoxic T lymphocytes in peripheral blood or cytokine produced by such cytotoxic lymphocytes.

Claim 37. (Currently Amended) A cancer treatment and/or amelioration method comprising administrating to a human having HLA-A2402 as a leukocyte antigen the peptide of claim ~~1~~2.

Claim 38. (Currently Amended) A cancer treatment or amelioration method comprising the steps of collecting mononuclear cell fraction from peripheral blood of a human patient having HLA-A2402 as a leukocyte antigen,

culturing the mononuclear cell fraction with the peptide of claim ~~1~~2 and

returning to the patient's blood the mononuclear cell fraction in which cytotoxic T lymphocytes are induced and/or activated.

Claim 39. (Currently Amended) A method of inducing cytotoxic T lymphocytes comprising administrating to a human having HLA-A2402 as a leukocyte antigen:

the peptide of claim ~~1~~2.

Claim 40. (Previously Presented) A cancer treatment or amelioration method comprising administrating the cytotoxic T lymphocyte of claim 30 to a human having HLA-A2402 as a leukocyte antigen.

Claim 41. (Currently Amended) A major histocompatibility antigen complex tetramer of claim 21, wherein the tetramer is a

complex comprising an HLA-A2402 molecule, a β2 microgloblin, and ~~the~~ a peptide, wherein the peptide is ~~any one~~ either ~~of~~ (1) ~~to (6)~~ or (2) below:

~~(1) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 1~~

~~(2) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 2~~

~~(3) a mutant peptide consisting essentially of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO:1 by addition, deletion or substitution of one or more amino acids, the peptide being capable of forming a complex with an HLA-A2402 molecule to be recognized by HLA-A2402-restricted cytotoxic T lymphocytes or induce such lymphocytes~~

~~(4) a mutant peptide consisting essentially of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO:2 by addition, deletion or substitution of one or more amino acids, the peptide being capable of forming a complex with an HLA-A2402 molecule to be recognized by HLA-A2402-restricted cytotoxic T lymphocytes or induce such a lymphocytes~~.

~~(5)~~ (1) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 1

~~(6)~~ (2) a peptide consisting essentially of the amino acid sequence represented by SEQ ID NO: 2

or the tumor antigen epitope peptide present on the antigen-presenting cell.

Claim 42. (Original) A cancer vaccine comprising the histocompatibility antigen complex tetramer of claim 41 as an active ingredient.

Claim 43. (Currently Amended) The~~A~~ cancer vaccine of claim 42, wherein the cancer is an epithelial cancer.

Claim 44. (Currently Amended) The~~A~~ cancer vaccine of claim 42, wherein the cancer is selected from the group consisting of large intestinal cancers, lung cancers, breast cancers, gastric cancers, buccal cancers, pancreatic cancers, esophagal cancers, nasopharyngeal cancers, uterine cancers, prostate cancers, and gallbladder cancers.

Claim 45. (Currently Amended) The~~A~~ cancer vaccine of claim 42 which is useful for treating a human having HLA-A2402 as a leukocyte antigen.

Claim 46. (Original) A cytotoxic T lymphocyte inducer comprising the major histocompatibility antigen complex tetramer of claim 41.

Claim 47. (Currently Amended) ~~A~~The cytotoxic T lymphocyte inducer of claim 46 which is useful for treating a human having HLA-A2402 as a leukocyte antigen.

Claim 48. (Previously Presented) A cytotoxic T lymphocyte which is obtained by stimulating peripheral blood lymphocytes using the antigen-presenting cell of claim 14.

Claim 49. (Previously Presented) A cytotoxic T lymphocyte which is obtained by stimulating peripheral blood lymphocytes using the major histocompatibility antigen complex of claim 21.

Claim 50. (Previously Presented) A cytotoxic T lymphocyte which is obtained by stimulating peripheral blood lymphocytes using the major histocompatibility antigen complex tetramer of claim 29.

Claim 51. (Previously Presented) A method of quantifying HLA-A2402-restricted cytotoxic T lymphocytes in peripheral blood, comprising making the following act on peripheral blood:

the antigen-presenting cell of claim 14, and

quantifying cytotoxic T lymphocytes in peripheral blood or cytokine produced by such cytotoxic lymphocytes.

Claim 52. (Previously Presented) A method of quantifying HLA-A2402-restricted cytotoxic T lymphocytes in peripheral blood, comprising making the following act on peripheral blood:

the major histocompatibility antigen complex of claim 21, and

quantifying cytotoxic T lymphocytes in peripheral blood or cytokine produced by such cytotoxic lymphocytes.

Claim 53. (Previously Presented) A method of quantifying HLA-A2402-restricted cytotoxic T lymphocytes in peripheral blood, comprising making the following act on peripheral blood:

the major histocompatibility antigen complex tetramer of claim 29, and

quantifying cytotoxic T lymphocytes in peripheral blood or cytokine produced by such cytotoxic lymphocytes.

Claim 54. (Previously Presented) A cancer treatment and/or amelioration method comprising administrating to a human having HLA-A2402 as a leukocyte antigen the peptide of claim 14.

Claim 55. (Previously Presented) A cancer treatment and/or amelioration method comprising administrating to a human having HLA-A2402 as a leukocyte antigen the major histocompatibility antigen complex of claim 21.

Claim 56. (Previously Presented) A cancer treatment and/or amelioration method comprising administrating to a human having

HLA-A2402 as a leukocyte antigen the major histocompatibility antigen complex tetramer of claim 29.

Claim 57. (Previously Presented) A cancer treatment or amelioration method comprising the steps of collecting mononuclear cell fraction from peripheral blood of a human patient having HLA-A2402 as a leukocyte antigen, culturing the mononuclear cell fraction with the antigen-presenting cell of claim 14, and

returning to the patient's blood the mononuclear cell fraction in which cytotoxic T lymphocytes are induced and/or activated.

Claim 58. (Previously Presented) A cancer treatment or amelioration method comprising the steps of collecting mononuclear cell fraction from peripheral blood of a human patient having HLA-A2402 as a leukocyte antigen, culturing the mononuclear cell fraction with the major histocompatibility antigen complex of claim 21, and

returning to the patient's blood the mononuclear cell fraction in which cytotoxic T lymphocytes are induced and/or activated.

Claim 59. (Previously Presented) A cancer treatment or amelioration method comprising the steps of collecting mononuclear cell fraction from peripheral blood of a human patient having HLA-A2402 as a leukocyte antigen, culturing the mononuclear cell fraction the major histocompatibility antigen complex tetramer of claim 29, and

returning to the patient's blood the mononuclear cell fraction in which cytotoxic T lymphocytes are induced and/or activated.

Claim 60. (Previously Presented) A method of inducing cytotoxic T lymphocytes comprising administrating to a human having HLA-A2402 as a leukocyte antigen the antigen-presenting cell of claim 14.

Claim 61. (Previously Presented) A method of inducing cytotoxic T lymphocytes comprising administrating to a human having HLA-A2402 as a leukocyte antigen the major histocompatibility antigen complex of claim 21.

Claim 62. (Previously Presented) A method of inducing cytotoxic T lymphocytes comprising administrating to a human having HLA-A2402 as a leukocyte antigen the major histocompatibility antigen complex tetramer of claim 29.

Claim 63. (New) The cytotoxic T lymphocyte of claim 48 which is obtained by the steps comprising forming a complex between a major histocompatibility antigen complex and/or a tetramer thereof and a cytotoxic T lymphocyte by stimulating peripheral blood lymphocytes and isolating the cytotoxic T lymphocyte from the complex.

Claim 64. (New) A passive immunotherapy drug comprising the cytotoxic T lymphocyte of claim 48 as an active ingredient.

Claim 65. (New) The cytotoxic T lymphocyte of claim 49 which is obtained by the steps comprising forming a complex between a major histocompatibility antigen complex and/or a tetramer thereof and a cytotoxic T lymphocyte by stimulating peripheral blood lymphocytes and isolating the cytotoxic T lymphocyte from the complex.

Claim 66. (New) A passive immunotherapy drug comprising the cytotoxic T lymphocyte of claim 49 as an active ingredient.

Claim 67. (New) The cytotoxic T lymphocyte of claim 50 which is obtained by the steps comprising forming a complex between a major histocompatibility antigen complex and/or a tetramer thereof and a cytotoxic T lymphocyte by stimulating peripheral blood lymphocytes and isolating the cytotoxic T lymphocyte from the complex.

Claim 68. (New) A passive immunotherapy drug comprising the cytotoxic T lymphocyte of claim 50 as an active ingredient.